

1. A method of automating testing of a communication system including communication resources, the method comprising:

selecting a first test from a plurality of tests stored in a test database;

processing the first test to identify at least one first communication resource

related to the first test;

determining if the at least one first communication resource related to the first test is available for the first test before executing the first test; and

generating a first execute instruction to execute the first test responsive to the at least one first communication resource related to the first test being available for the first test.

2. The method of claim 1 further comprising storing the first test back in the test database responsive to determining that one of the at least one first communication resource related to the first test is not available for the first test.

3. The method of claim 1 further comprising receiving the plurality of tests for storage in the test database.

4. The method of claim 1 further comprising processing the first test to determine if the first test requests an exclusive use of the at least one first communication resource.

5. The method of claim 1 further comprising processing the first test to determine if the first test requests a general use of the at least one first communication resource.

6. The method of claim 1 further comprising selecting a second test from the plurality of tests stored in the test database.

7. The method of claim 6 further comprising of processing the second test to identify at least one second communication resource related to the second test.

8. The method of claim 7 further comprising determining if the at least one second communication resource related to the second test is available for the second test before executing the second test.

5 9. The method of claim 8 further comprising generating a second execute instruction to execute the second test responsive to the at least one second communication resource related to the second test being available for the second test.

10 10. The method of claim 9 further comprising storing the second test back in the test database responsive to determining that one of the at least one second communication resource related to the second test is not available for the second test.

11. A resource management system, comprising:

a test database configured to store a plurality of tests; and

15 a processing system coupled the test database and configured to select a first test from the plurality of tests stored in the test database, process the first test to identify at least one first communication resource related to the first test, determine if the at least one first communication resource related to the first test is available for the first test before executing the first test, and generate a first execute instruction to execute the first test  
20 responsive to the at least one first communication resource related to the first test being available for the first test.

12. The resource management system of claim 11 wherein said processing system is further configured to store the first test back in the test database responsive to  
25 determining that one of the at least one first communication resource related to the first test is not available for the first test.

13. The resource management system of claim 11 wherein said processing system is further configured to couple to a test system and receive the plurality of tests from the test  
30 system.

14. The resource management system of claim 13 wherein said processing system is further configured to transfer test results of the first test to the test system.

15. The resource management system of claim 11 wherein said processing system is further configured to couple to a resource database, wherein the resource database is configured to store a list of communication resources.

16. The resource management system of claim 11 wherein said processing system is further configured to process the first test to determine if the first test requests an exclusive use of the at least one first communication resource.

17. The resource management system of claim 11 wherein said processing system is further configured to process the first test to determine if the first test requests a general use of the at least one first communication resource.

18. The resource management system of claim 11 wherein said processing system is further configured to select a second test from the plurality of tests stored in said test database.

19. The resource management system of claim 18 wherein said processing system is further configured to process the second test to identify at least one second communication resource related to the second test.

20. The resource management system of claim 19 wherein said processing system is further configured to determine if the at least one second communication resource related to the second test is available for the second test.

21. The resource management system of claim 20 wherein said processing system is further configured to generate a second execute instruction to execute the second test responsive to the at least one second communication resource related to the second test being available for the second test.

22. The resource management system of claim 21 wherein said processing system is further configured to store the second test back in said test database responsive to determining that one of the at least one second communication resource related to the second test is not available for the second test.

23. A software product for managing the testing of a communication system including communication resources, comprising:

resource management software configured when executed by a processor to select a first test from a plurality of tests stored in a memory, process the first test to identify at least one first communication resource related to the first test, determine if the at least one first communication resource related to the first test is available for the first test, and generate a first execute instruction to execute the first test responsive to the at least one first communication resource related to the first test being available for the first test; and

a software storage medium configured to store the resource management software.

24. The software product of claim 23 wherein the resource management software is further configured when executed by the processor to store the first test back in the memory responsive to determining that one of the at least one first communication resource related to the first test is not available for the first test.

25. The software product of claim 23 wherein the resource management software is further configured when executed by the processor to store the plurality of tests.

26. The software product of claim 23 wherein the resource management software is further configured when executed by the processor to generate a resource database that contains a list of communication resources.

27. The software product of claim 23 wherein the resource management software is further configured when executed by the processor to determine if the first test requests an exclusive use of the at least one first communication resource.

5 28. The software product of claim 23 wherein the resource management software is further configured when executed by the processor to determine if the first test requests a general use of the at least one first communication resource.

10 29. The software product of claim 23 wherein the resource management software is further configured when executed by the processor to select a second test from the plurality of tests stored in the memory.

15 30. The software product of claim 29 wherein the resource management software is further configured when executed by the processor to identify at least one second communication resource related to the second test.

20 31. The software product of claim 30 wherein the resource management software is further configured when executed by the processor to determine if the at least one second communication resource related to the second test is available for the second test.

25 32. The software product of claim 31 wherein the resource management software is further configured when executed by the processor to generate a second execute instruction to execute the second test responsive to the at least one second communication resource related to the second test being available for the second test.

30 33. The software product of claim 32 wherein the resource management software is further configured when executed by the processor to store the second test back in the memory responsive to determining that one of the at least one second communication resource related to the second test is not available for the second test.